Remarks

In the present response, claims 1-12 are presented for examination.

Claim Rejections: 35 USC § 102(b)

Claims 1, 4, 5, 8, and 9 are rejected under 35 USC § 102(b) as being anticipated by USPN 6,070,170 (Friske). These rejections are traversed.

The claims recite elements not taught or even suggested in Friske. Some examples are provided below.

Claim 1

As one example, independent claim 1 recites a non-blocking grouping mechanism that receives a query from a user. The claim then recites that individual rows of data that match the query are output to the user prior to receiving all data matching the query. Friske does not teach or suggest these recitations.

Friske is not directed to processing queries, but to reorganizing data in a database. Specifically, Friske teaches reorganizing a database using a non-blocking drain that does not block other processes from accessing the database during the reorganization. In other words, while the database in Friske is being reorganized, a process can make a request to access data stored in the database.

The teaching in Friske is quite different than the recitations in claim 1. Again, claim 1 recites that individual rows of data that match the query are output to the user prior to receiving all data matching the query. Friske is not directed to queries. Nowhere does Friske teach or suggest that individual rows of data that match a query are output to a user prior to receiving all data matching the query.

Anticipation under section 102 can be found only if a single reference shows exactly what is claimed (see *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 227 U.S.P.Q. 773 (Fed. Cir. 1985)). For at least these reasons, independent claim 1 and its dependent claims are allowable over Friske.

Claim 5

As one example, independent claim 5 recites receiving a query from a user and receiving distinct entries for the query. The claim then recites that the distinct entries of data match the query and are returned to the user before all data matching the query is processed. Friske does not teach or suggest these recitations.

Friske is not directed to processing queries, but to reorganizing data in a database. Specifically, Friske teaches reorganizing a database using a non-blocking drain that does not block other processes from accessing the database during the reorganization. In other words, while the database in Friske is being reorganized, a process can make a request to access data stored in the database.

The teaching in Friske is quite different than the recitations in claim 5. Again, claim 5 recites that the distinct entries of data match the query and are returned to the user before all data matching the query is processed. Friske is not directed to queries. Nowhere does Friske teach or suggest that distinct entries of data matching the query are returned to the user before all data matching the query is processed.

For a prior art reference to anticipate under section 102, every element of the claimed invention must be identically shown in a single reference (see *In re Bond*, 910 F.2d 831, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990)). For at least these reasons, independent claim 5 and its dependent claims are allowable over Friske.

Claim 9

As one example, independent claim 9 recites in the non-blocking fashion individual rows of data that match a query are output to the user prior to a processing node processing all data from the query. Friske does not teach or suggest these recitations.

Friske is not directed to processing queries, but to reorganizing data in a database. Specifically, Friske teaches reorganizing a database using a non-blocking drain that does not block other processes from accessing the database during the reorganization. In other words, while the database in Friske is being reorganized, a process can make a request to access data stored in the database.

The teaching in Friske is quite different than the recitations in claim 9. Again, claim 9 recites in the non-blocking fashion individual rows of data that match a query are output to the user prior to a processing node processing all data from the query. Friske is not directed to queries. Nowhere does Friske teach or suggest that individual rows of data that match a query are output to the user prior to a processing node processing all data from the query.

In order for a prior art reference to be anticipatory under 35 U.S.C. § 102 with respect to a claim, "[t]he elements must be arranged as required by the claim," see M.P.E.P. § 2131, citing *In re Bond*, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990). For at least these reasons, independent claim 9 is allowable over Friske.

Claim Rejections: 35 USC § 103(a)

Claims 2, 6-7, and 10-11 are rejected under 35 USC § 103(a) as being unpatentable over USPN 6,070,170 (Friske) in view of USPN 5,511,190 (Sharma). These rejections are traversed.

The claims recite elements not taught or suggested in Friske in view of Sharma. Some examples are provided below for the independent claims.

As one example, independent claim 10 recites in the non-blocking fashion data matching a query is output concurrently while data potentially matching the query is being processed. Claim 11 recites in the non-blocking fashion data matching a query is output concurrently while data being received for the query is still being processed. Friske in view of Sharma do not teach or suggest these recitations.

Friske is not directed to processing queries, but to reorganizing data in a database. Specifically, Friske teaches reorganizing a database using a non-blocking drain that does not block other processes from accessing the database during the reorganization. In other words, while the database in Friske is being reorganized, a process can make a request to access data stored in the database.

Sharma actually **teaches away** from claims 10 and 11. Sharma expressly teaches that data entries are not returned concurrently with processing. In Sharma, data entries are not returned to the user until all the data is read and analyzed. No single output row is returned (to the user) before the last one of the input rows is read and processed.

Applicant's interpretation of Sharma is supported in Sharma's specification.
Figure 3 in Sharma provides a flow diagram of a hash grouping method for retrieving
data and providing it to a user. Block 325 shows when in time results are provided to the
user. Specifically, results are not provided to the user **until the last row of the input file
is read**. Sharma discusses figure 3 and explains when results are reported to the user:

> [T]he grouping function tests whether the last row of the input file T1
> 212 has been read (325). If the end of the table T1 212 has not been
> reached (325 - N), the input procedure 232 of the grouping function
> GF 124a begins processing the next row of the input table (312). If the
> end of the table T1 212 has been reached (325 - Y), the contents of the
> group table are reported (327) to the user via the communications
> interface 114. (See Sharma col. 11, lines 32-40).

Thus, claims 10 and 11 clearly recite elements not taught in Sharma. In claims 10,
data entries are output concurrently while data potentially matching the query is being
processed. In claim 11, data entries are output concurrently while data being received for
the query is still being processed. By contrast in Sharma, data entries are not returned to
the user until all data is read (i.e., until the last row of the input file is read).

The supreme court in KSR International acknowledged that "when the prior art
teaches away from combining certain known elements, discovery of a successful means
of combining them is more likely to be nonobvious" (*KSR v. Teleflex,* 550 U.S. ___, 127
at S. Ct. 1727 (2007)).

As such, the differences between the claims and the teachings in Friske in view of
Sharma are great. These references fail to teach or suggest all of the claim elements.
These missing elements show that the differences between the combined teachings in the
art and the recitations in the claims are great. As such, the pending claims are not a
predictable variation of the art to one of ordinary skill in the art.

For at least these reasons, the claims are allowable over Friske in view of Sharma.

CONCLUSION

In view of the above, Applicants believe that all pending claims are in condition for allowance. Allowance of these claims is respectfully requested.

Any inquiry regarding this Amendment and Response should be directed to Philip S. Lyren at Telephone No. 832-236-5529. In addition, all correspondence should continue to be directed to the following address:

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Respectfully submitted,

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